

March 6, 1851.

GEORGE RENNIE, Esq., V.P., in the Chair.

In accordance with the statutes, the following List of Candidates for admission into the Society was read by the Secretary :—

Charles Cardale Babington, M.A.	Richard Hartley Kennedy, Esq.
Thomas Snow Beck, M.D.	William Edmund Logan, Esq.
Daniel Blair, M.D.	Edward Joseph Lowe, Esq.
Alexander Bryson, M.D.	Charles Manby, Esq.
Charles James Fox Bunbury, Esq.	Joseph Maudslay, Esq.
Rev. Jonathan Cape, M.A.	James Paget, Esq.
Rev. John Cumming, D.D.	Hugh Lee Pattinson, Esq.
Hewitt Davis, Esq.	Apsley Pellatt, Esq.
George T. Doo, Esq.	Rev. Bartholomew Price, M.A.
Edward B. Eastwick, Esq.	Lovell Augustus Reeve, Esq.
Charles M. Elliot, Capt. Madras Engineers.	Julius Roberts, Lieut. R.M.A.
Robert Fitzroy, Capt. R.N.	George Gabriel Stokes, Esq.
Henry Gray, Esq.	William Thomson, Esq.
Wyndham Harding, Esq.	Augustus Waller, M.D.
John Hawkshaw, Esq.	Nathaniel Bagshaw Ward, Esq.
John Higginbottom, Esq.	Arthur Parry Eardley Wilmot, Com. R.N.
John Russell Hind, Esq.	Forbes Benignus Winslow, M.D.
Augustus Wm. Hofmann, Ph.D.	Charles Younghusband, Capt. R.A.
Thomas Henry Huxley, Esq.	
Edward Augustus Inglefield, Com. R.N.	

The following papers were read :—

1. "On the Explanation of the so-called 'Mysterious Circles.'" By the Rev. Robert H. Atherton. Communicated by the Earl of Rosse, P.R.S. &c. Received November 28, 1850.

The author refers to explanations which have been given of the phenomenon, of which he proposes to give a new one, and points out various courses which the propelled air may be supposed to take with reference to the cards. He then offers what he considers to be the true explanation of the phenomenon. He considers that no sooner has the air struck upon the loose card, than it is reflected, spreading partly, if not entirely, over its surface, and then ascends, carrying with it the interposing atmosphere, and excluding the surrounding air. This, he submits, is analogous to ordinary suction, and by this means the loose card is at once drawn up and fixed. He considers that the reflected air, thus rising and driven out by the descending current, will have additional power when the fixed card is considerably larger than the other.

2. "On the relation of the Direction of the Wind to the Age of the Moon, as inferred from observations at the Royal Observatory, PROCEEDINGS OF THE ROYAL SOCIETY. VOL. VI. No. 78. 3

Greenwich, from 1840 November to 1847 December." By G. B. Airy, Esq., F.R.S. &c., Astronomer Royal. Received January 9, 1851.

The author states, that in a voyage to Shetland, in the year 1849, he heard allusions to the belief entertained generally by Norwegian seamen, that a northerly wind may always be expected about the time of new moon. The expression of this belief was so positive, and the implication of the interests of the persons entertaining it was so distinct, that it appeared to him extremely probable that there was some physical foundation for it. At the first convenient opportunity he therefore took measures for discussing, with reference to this question, the directions of the wind at the Royal Observatory, during a period of rather more than seven years, as ascertained from the records of Osler's self-registering anemometer. He extended the research so far as to enable any one to judge whether there is any probable relation between any direction of wind and any age of the moon.

The collection and summation of the numbers was effected under the immediate superintendence of Mr. Glaisher; and great pains were taken to establish such checks on the operation that error is considered to be almost impossible.

The general result is contained in a table subjoined to the paper. This exhibits the number of hours during which the wind blew in each of sixteen equal divisions of the azimuthal circle, and also the number of hours of sensible calm, in the period extending (with very small interruptions) from 1840 November to 1847 December, arranged in reference to the days of the moon's age. The author remarks, that while this table shows that there is great uncertainty in the verification of an empirical law, even from nearly ninety lunations, it seems very distinctly to negative the asserted law which gave rise to the inquiry.

March 13, 1851.

Lieut.-Col. SABINE, R.A., V.P. and Treasurer, in the Chair.

The following papers were read :—

1. "On the Meteorology of the Lake District, including the results of experiments on the fall of Rain at various heights up to 3166 feet above the sea-level. Fourth paper. For the year 1850." By John Fletcher Miller, Esq., F.R.S., F.R.A.S. &c. Received February 21, 1851.

The observations detailed in this paper are similar to those described by the author in his former papers, and the results deduced from them agree generally with those previously obtained.

In the introductory remarks, the author states that he determined the heights of the different rain-gauges above the level of the sea by